WHAT IS CLAIMED IS:

1.   A processing system comprising an processing apparatus and a processing agent, the processing agent being administrable to a processing subject and having in relation thereto a primary behaviour effective in combination with said processing apparatus to achieve a desired process result, wherein the processing agent further has a distinctive signature characteristic distinguishing it from other processing agents, and wherein the processing system comprises test functionality to test for the distinctive signature characteristic of the processing agent and selectively to modify subsequent operation of the processing apparatus based on the test result.

2.   A processing system according to claim1 wherein the test functionality is effective to disable, at least partially, subsequent operation of the processing apparatus in the absence of said distinctive signature characteristic.

3.   A processing system according to claim1 wherein the test functionality is effective to disable, at least partially, output of the process result in the absence of said distinctive signature characteristic.

4.   A processing system according to claim 1 wherein the processing agent comprises a first component for providing said primary behaviour and a second component having said distinctive signature characteristic.

5.   A processing system according to claim 1 wherein the distinctive signature characteristic is in the behaviour of the processing agent in the processing subject.

6.   A processing system according to claim 5 wherein the distinctive signature characteristic is in the time-dependent behaviour of the processing agent in the processing subject.

7.   A processing system according to claim 5 wherein the distinctive signature characteristic is in the spatially-dependent behaviour of the processing agent in the processing subject.

8.   A processing system according to claim 1 wherein the distinctive signature characteristic is a property of the processing agent detectable by the processing apparatus.

9.   A processing system according to claim 1 wherein the processing apparatus comprises an analysis apparatus, the processing agent comprises an analysis agent and the processing subject is an analysis subject, the analysis agent being administrable to the analysis subject and having in relation thereto a primary behaviour effective to reveal upon analysis by the analysis apparatus a condition of the analysis subject as said process result.

10.   An analysis system according to claim 9 wherein the distinctive signature characteristic is a property of the processing agent detectable by the analysis apparatus on analysis of the primary behaviour of the analysis agent.

11.   An analysis system according to claim 9 wherein the analysis apparatus is a medical imaging apparatus and the analysis agent comprises a contrast agent.

12.   An analysis system according to claim 11 wherein the analysis agent comprises two radio isotopes of different decay characteristics to provide said distinctive signature characteristic.

13.   An analysis system according to claim 11 wherein the analysis agent comprises a component emitting photons of a particular energy to provide said distinctive signature characteristic.

14.   An analysis system according to claim 11 wherein the distinctive signature characteristic is the magnetic resonance spectrum of the contrast agent.

15.   An analysis system according to claim 11 wherein the analysis agent comprises the contrast agent and a further component having a distinctive magnetic resonance spectrum to provide said distinctive signature characteristic.

16.   A processing system according to claim 1 wherein the processing subject is a human being, plant or animal.

17.   A processing system according to claim 1 wherein the processing subject is *in vitro*.

18.   A computer program comprising program code means for providing on a programmed data processor test functionality for use in a processing system in accordance with claim 1.

19.   A computer program according to claim 18 further comprising program code means for controlling said processing apparatus to achieve said desired process result.

20.   A processing agent for use in a processing system in accordance with claim 1 and having in relation to a predetermined processing subject a primary behaviour effective in combination with said processing apparatus to achieve a desired process result, and further having a distinctive signature characteristic distinguishing it from other processing agents and distinguishable by said test functionality.